

Source Control Proposed Plan

WILCOX OIL COMPANY, BRISTOW, OK
JULY 10, 2018



Purpose

Provide Site Background Information

Present the Cleanup Alternatives Considered for Source Material

Describe the Preferred Alternative to address Source Material

Solicit the Public's Review and Comment

7/10/18

WILCOX OIL COMPANY SOURCE CONTROL PROPOSED PLAN

2

Community Involvement

Site documents can be found at:

- Bristow Public Library
- Oklahoma Department of Environmental Quality

Web Resources

- ODEQ: www.deq.state.ok.us/lpdnew/index.htm
- U.S. EPA: <http://www.epa.gov/superfund/wilcox-oil>

Comment Period

- June 28 Through July 31, 2018
- Submit oral comments today.
- Submit written comments today, or by postal mail, or by electronic mail
- EPA's responses to all comments:
- "Responsiveness Summary" of the "Record of Decision."

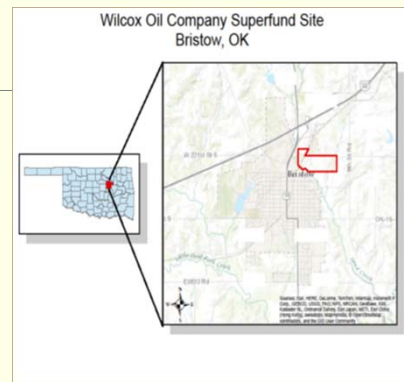
7/10/18

WILCOX OIL COMPANY SOURCE CONTROL PROPOSED PLAN

3

Site Location

The Site is situated NE of Bristow, Creek County, Oklahoma



7/10/18

WILCOX OIL COMPANY SOURCE CONTROL PROPOSED PLAN

4

Site Background



1950s Aerial Photograph

Operation:
Oil Refinery

Activity Period:
1915 through 1963

Size:
about 140 to 150 acres

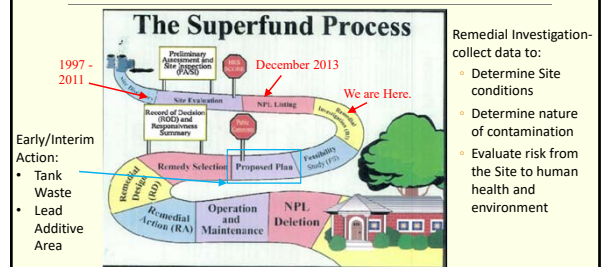
Listed:
December 12, 2013

7/10/18

WILCOX OIL COMPANY SOURCE CONTROL PROPOSED PLAN

5

Superfund Process – Project Status

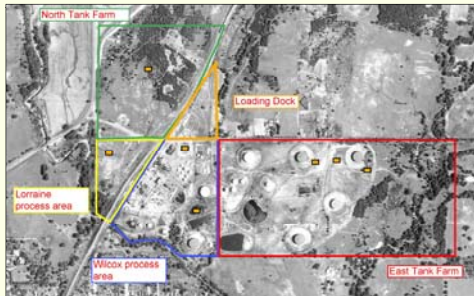


7/10/18

WILCOX OIL COMPANY SOURCE CONTROL PROPOSED PLAN

6

Remedial Investigation – 5 Operation Areas

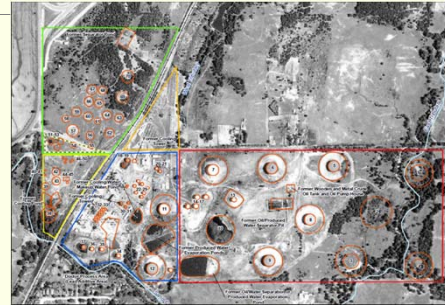


7/10/18

WILCOX OIL COMPANY SOURCE CONTROL PROPOSED PLAN

7

Remedial Investigation – Facility Features



7/10/18

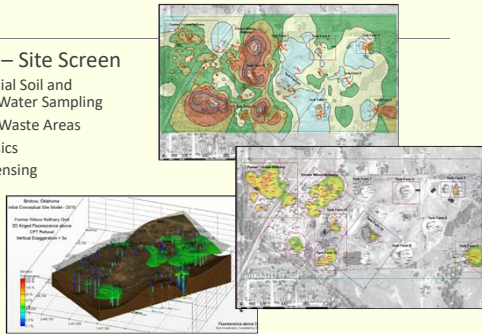
WILCOX OIL COMPANY SOURCE CONTROL PROPOSED PLAN

8

Remedial Investigation – Phase Approach

Phase 1 – Site Screen

- Residential Soil and Ground Water Sampling
- Fencing Waste Areas
- Geophysics
- Direct Sensing



7/10/18

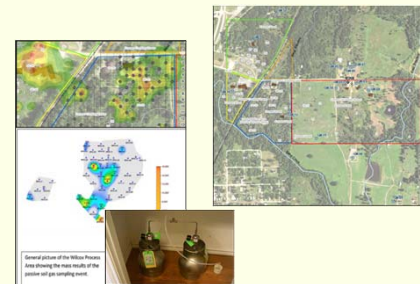
WILCOX OIL COMPANY SOURCE CONTROL PROPOSED PLAN

9

Remedial Investigation – Phase Approach

Phase 2 – Data Collection over multiple field events

- Ground water
- Soil gas and indoor air



7/10/18

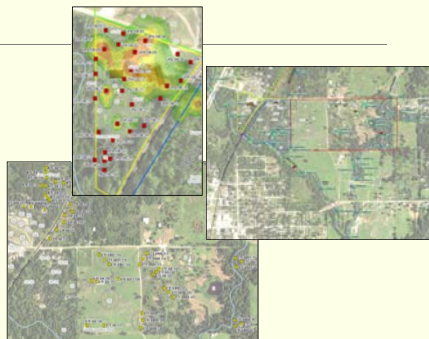
WILCOX OIL COMPANY SOURCE CONTROL PROPOSED PLAN

10

Remedial Investigation – Phase Approach

Phase 2 – Data Collection over multiple field events

- Soils
- Surface water
- Sediment
- Sources



7/10/18

WILCOX OIL COMPANY SOURCE CONTROL PROPOSED PLAN

11

Remedial Investigation – Sources

Source Identification

- Tank waste
- Lead Additive Area



7/10/18

WILCOX OIL COMPANY SOURCE CONTROL PROPOSED PLAN

12

Remedial Investigation - Sources



7/10/18

WILCOX OIL COMPANY SOURCE CONTROL PROPOSED PLAN

13

Interim/Early Action Purpose

- Provides for Remediation of sites in Phases
- Eliminates, reduces, or controls actual or potential risks and hazards
- Expedites Site cleanup completion
- Promotes prompt risk reduction and increases site response efficiency
- Addresses releases or threatened releases of hazardous substances that may present risk

Federal Register, Volume 55 No. 46, page 8704, March 8, 1990
 National Oil and Hazardous Substances National Contingency Program (NCP) (see 40 CFR 300.413 (b)(1) (3) and 300.410 (a)(1) (3)(A))
 Record of Decision guidance, July 1999

7/10/18

WILCOX OIL COMPANY SOURCE CONTROL PROPOSED PLAN

14

Streamlined Feasibility Screen

- Current field data
- Presumptive Remedy Approach
- Focus on Effectiveness, Implementability, and Cost
- Multiple Technologies Reviewed
 - Capping
 - Excavation
 - Treatment

Result: two alternatives identified for further evaluation

- Excavation, Treatment and Offsite Disposal
- Excavation, Treatment, Consolidation, Capping

7/10/18

WILCOX OIL COMPANY SOURCE CONTROL PROPOSED PLAN

15

Alternatives Evaluated

Alternative 1: No Action

Alternative 2: Excavation, Treatment and Offsite Disposal \$4,135,294

Alternative 3: Excavation, Treatment, Consolidation, Capping \$4,633,269

Source Material Health-Based Target Levels¹

Contaminant	Data Results (mg/kg)	Health Based Target Level (mg/kg)	Health-Based Target Level Basis
Lead	105,000	800	Protection of blood lead levels in workers
Benzo(a)pyrene	12	0.11	Residential Cancer Screening Number at 10-6 Risk

¹ - Regional Screening Levels for Chemical Contaminants at Superfund Sites, November 2017
 mg/kg = milligram per kilogram

7/10/18

WILCOX OIL COMPANY SOURCE CONTROL PROPOSED PLAN

16

Comparison of Alternatives using the 9 Evaluation Criteria

THRESHOLD CRITERIA

overall protection of human health and the environment

compliance with applicable or relevant and appropriate requirements (ARARs)

BALANCING CRITERIA

long-term effectiveness and permanence
 reduction of toxicity, mobility or volume through treatment
 short-term effectiveness
 Implementability
 cost

MODIFYING CRITERIA

State Acceptance
 Community Acceptance

7/10/18

WILCOX OIL COMPANY SOURCE CONTROL PROPOSED PLAN

17

Comparison of Alternatives

ALTERNATIVE 2: EXCAVATION, TREATMENT AND OFFSITE DISPOSAL

Protective and Meets Regulations
 Treatment of Lead Source
 Sources Removed- Disposed Offsite
 Estimated 4 months to complete
 \$4,135,294
 Limited/Temporary Restrictions
 Five-Year Review
 No Operations and Maintenance

ALTERNATIVE 3: EXCAVATION, TREATMENT, CONSOLIDATION, CAPPING

Protective and Meets Regulations
 Treatment of Lead Source
 Sources Consolidated-Onsite
 Estimated 6 months to complete
 \$4,633,269
 Land Restrictions
 Five-Year Review
 Operations and Maintenance

7/10/18

WILCOX OIL COMPANY SOURCE CONTROL PROPOSED PLAN

18

Preferred Alternative

Excavation, Treatment, and Offsite Disposal \$4,135,294

Areas of Remediation – Estimated Volumes	
Area Name	Volume Estimated (cubic yards)
Lorraine Waste	953
Lead Additive Area	2269
Tank 1	3,323
Tank 3	3,608
NTE-1	818
Tank 10	9,902
Tank 11	431
Tank 12	4,788
Pit 1	4,270
Total	30,362 (5 Acres)

7/10/18

WILCOX OIL COMPANY SOURCE CONTROL PROPOSED PLAN

19

Alternative Proposed

Excavation, Treatment, and Offsite Disposal : Tank Waste and Lead Additive Area

Benefits:

- 9 Sources removed
- 5 migration Pathways to the Creek removed
- 4 Residential Properties addressed
- Overall Site Risk Reduction: Human and Ecological



7/10/18

WILCOX OIL COMPANY SOURCE CONTROL PROPOSED PLAN

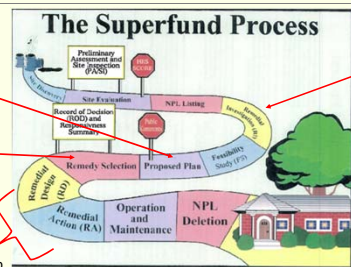
20

Future Work

We are Here.
Proposed Plan
Source Control
(2018)

Record of
Decision
Source Control
(2018)

Source Control
Design and Cleanup
(planned 2019/2020)



We are Here.
This work
continues.

7/10/18

WILCOX OIL COMPANY SOURCE CONTROL PROPOSED PLAN

21

Community Involvement

Contacts

- EPA, Project Manager: Katrina Higgins-Coltrain 214-665-8143
- ODEQ, Project Manager: Todd Downham 405-702-5136
- EPA, Community Involvement: Jason McKinney 214-665-8132
- EPA toll-free number 800-533-5308
- George Pettigrew, ATSDR 214-665-8361
- EPA External Affairs: Jennah Durant 214-665-2287

7/10/18

WILCOX OIL COMPANY SOURCE CONTROL PROPOSED PLAN

22